

IN THE CLAIMS

Please amend the following claims.

1. (currently amended) A method of forming a ~~high-concentration~~ borophosphosilicate glass layer on a substrate, the method comprising:
 - providing a substrate in a chamber;
 - providing a silicon source, a oxygen source, a boron source and a phosphorous source into the chamber to form a ~~high-concentration~~ borophosphosilicate glass layer on the substrate; and
 - reflowing the ~~high-concentration~~ borophosphosilicate glass layer formed on the substrate[.], wherein reflowing the borophosphosilicate glass layer comprises:
 - placing the borophosphosilicate glass layer in a rapid thermal processing chamber having an oxygen ambient and a first chamber temperature in a range of approximately 300°C to 650°C;
 - flowing hydrogen into the rapid thermal processing chamber, after placing the borophosphosilicate glass layer in the rapid thermal processing chamber, to provide a wet ambient formed by an in-situ reaction of hydrogen and oxygen; and
 - increasing the first chamber temperature to a second chamber temperature in a range of approximately 600°C to 1050°C at a rate in a range of approximately 20°C per second to 40°C per second.
2. (currently amended) The method of claim 1 further comprising cooling the substrate for a predetermined period of time following reflowing the ~~high-concentration~~ borophosphosilicate glass layer formed on the substrate.
3. (currently amended) The method of claim 1 wherein the ~~high-concentration~~ borophosphosilicate glass layer comprises about 2-7 weight percent boron and about 2-9 weight percent of phosphorous.
4. (currently amended) The method of claim 1 wherein a combined weight percent of boron and phosphorous present in the ~~high-concentration~~ borophosphosilicate glass layer is about 10-12 weight percent.

5. (currently amended) The method of claim 1 wherein providing the silicon, oxygen, boron and phosphorous sources into the chamber to form the ~~high concentration~~ borophosphosilicate glass layer on the substrate is performed at a deposition temperature in a range of approximately 300-600 °C.
6. (currently amended) The method of claim 1 wherein reflowing the ~~high concentration~~ borophosphosilicate glass layer is performed at a reflow temperature in a range of approximately 600-1050° C in an ambient selected from the group consisting of dry ambient, steam ambient, water ambient and ambient formed by in-situ reaction of H₂ and O₂.
7. (original) The method of claim 1 wherein the silicon source is TEOS.
8. (original) The method of claim 1 wherein the oxygen source is O₃.
9. (original) The method of claim 1 wherein the boron source comprises TEB.
10. (original) The method of claim 1 wherein the phosphorous source comprises TEPO.
11. (currently amended) The method of claim 1 wherein the ~~high concentration~~ borophosphosilicate glass layer fills at least one trench contained in the substrate having an aspect ratio of about 7:1 to 10:1.
12. (currently amended) A method of forming an insulating layer on a substrate, the method comprising:
 - providing a substrate in a chamber;
 - providing a silicon source, a oxygen source, a boron source and a phosphorous source to chemical vapor deposit a ~~high concentration~~ borophosphosilicate glass layer on the substrate;
 - forming a second insulating glass layer of undoped silicon glass over the ~~high concentration~~ borophosphosilicate glass layer; and
 - reflowing the deposited ~~high concentration~~ borophosphosilicate glass layer on the substrate[[]], wherein reflowing the borophosphosilicate glass layer comprises:

placing the borophosphosilicate glass layer in a rapid thermal processing chamber having an oxygen ambient and a first chamber temperature in a range of approximately 300°C to 650°C;

flowing hydrogen into the rapid thermal processing chamber, after placing the borophosphosilicate glass layer in the rapid thermal processing chamber, to provide a wet ambient formed by an in-situ reaction of hydrogen and oxygen; and

increasing the first chamber temperature to a second chamber temperature in a range of approximately 600°C to 1050°C at a rate in a range of approximately 20°C per second to 40°C per second.

13. (currently amended) The method of claim 12 wherein the ~~high-concentration~~ borophosphosilicate glass layer comprises about 2-7 weight percent boron and about 2-9 weight percent of phosphorous.
14. (currently amended) The method of claim 12 wherein a combined weight percent of boron and phosphorous present in the ~~high-concentration~~ borophosphosilicate glass layer is about 10-12 weight percent.
15. (cancelled)
16. (original) The method of claim 1 wherein the silicon source is TEOS flowing in the chamber at a rate of about 200-1000 milligrams per minute.
17. (original) The method of claim 1 wherein the boron source is TEB flowing in the chamber at a rate of about 100-300 milligrams per minute.
18. (original) The method of claim 1 wherein the phosphorous source is TEPO flowing in the chamber at a rate of about 10-150 milligrams per minute.
19. (original) The method of claim 1 wherein the oxygen source is O₃ flowing in the chamber at a rate of about 2000-6000 standard cubic centimeters per minute.

20. (currently amended) The method of claim 1 wherein the ~~high-concentration~~ borophosphosilicate glass layer is formed in the chamber at a rate in a range of approximately 2000 to 6000 Å/min.

21. (original) The method of claim 12 wherein the second insulating glass layer has a thickness in a range of approximately 100 to 200 Å.

Claims 22-27 (cancelled)

ELECTION/RESTRICTIONS

Applicant affirms the election of Claims 1-21 and the cancellation of non-elected claims 22-27.